PREVENTIVE MAINTENANCE REQUIREMENTS GSA 2105		BUILDING Wilbur J. Cohen Building NUMBER DC0034ZZ			
PM GUIDE NO	ITEMS	QUAN-TITY	FREQ.		
A-01	AIR DRYER,REFRIGERANT/REGENERATIVE	3	1.00		
A-02	A/C UNITARY ROOF-TOP (HEAT-COOL)				
A-03	HUMIDIFICATION SYSTEMS		1.00		
A-04	AIR COMPRESSOR	10	2.00		
A-05	A/C MACHINE , SPLIT SYSTEM				
	SPECIAL PURPOSE TEN TONS AND UNDER	38	6.00		
	SPRCIAL PURPOSE OVER TEN TONS	5	6.00		
A-06	A/C MACHINE PACKAGE UNIT COMFORT COOLING				
	TEN TONS AND UNDER	9	6.00		
	OVER TEN TONS	3	6.00		
A-07	A/C MACHINE PACKAGE UNIT , SPECIAL PURPOSE				
	10 TONS AND UNDER		6.00		
	OVER 10 TONS		6.00		
A-08	A/C CONDITIONING WINDOW UNIT	29	0.50		
A-09	AIR COOLED CONDENSER				
	20 TONS AND UNDER	1	1.00		
	OVER 20 TONS	1	1.00		
A-10	HEAT PUMPS				
	5 TONS AND UNDER	8	1.00		
	6 TO 10 TONS		1.00		
	OVER 10 TONS		1.00		
A-11	AIR HANDLER UNIT				
	UNDER 5000 CFM	17	1.00		
	5001-15,000 CFM	30	1.00		
	15,001-30,000 CFM	32	1.00		
	30,001 TO 50,000 CFM	2	1.00		
	50,001 TO 75,000 CFM		1.00		
	OVER 75,001 CFM		1.00		
	*NOTE: ADD 1 HOUR IF UNIT HAS DIRECT EXPANSION		1.00		
	COOLING COIL .				
A-12	GLYCOL DRY COOLER				
	COMFORT COOLING				
	20 TONS OR LESS	7	1.00		
	20 TONS - 40 TONS		1.00		
	EACH ADDITIONAL 10 TONS ADD.50 M/HRS		1.00		
	SPECIAL PURPOSE				
	20 TONS OR LESS		1.00		
	20 TONS - 40 TONS		1.00		
	EACH ADDITIONAL 10 TONS ADD.50 M/HRS		1.00		
A-13	A/C UNITS CEILING,WALL MOUNTED				
	COMFORT COOLING	6	1.00		
	SPECIAL PURPOSE	**19**	6.00		
A-14	AIR WASHER OR WET COIL SYSTEM				
	AIR WASHER				
	20,000 CFM OR LESS		1.00		
	20,001 TO 50,000 CFM		1.00		
	50,001 TO 75,000 CFM		1.00		
	OVER 75,000 CFM ADD 1 M/HR FOR		1.00		
	EACH ADDITIONAL 25,000 CFM				
	WET COILS				
	20,000 CFM OR LESS		1.00		
	20,001 TO 40,000 CFM		1.00		
	OVER 40,000 CFM ADD 1 M/HR FOR		1.00		
	EACH ADDITIONAL 20,000 CFM				
A-15	AFTER COOLER/ SEPERATOR		2.00		
A-24	ASH CONVEYOR TUBE/ PNEUMATIC,HYDRAULIC/PER TUBE		0.33		
B-01	BATTERY CHARGER		4.00		
B-02	BOILER (COAL, OIL, GAS)				
	120 MBTU'S OR LESS		1.00		
	120 TO 300 MBTU'S		1.00		
	300 TO 500 MBTU'S		1.00		
	500 TO 700 MBTU'S		1.00		
	700 TO 1,000 MBTU'S		1.00		
	OVER 1,000 MBTU'S		1.00		
B-03	BURNER, GAS		1.00		
B-04	BUNER, OIL		1.00		

B-05	BOILER, ELECTRIC		1.00			
B-06	BOILER, INSTRUMENTS/ CONTROLS		1.00			
B-07	BOILER, INTERNAL INSPECTION					
	120 MBTU'S OR LESS		1.00			
	121 TO 300 MBTU'S		1.00			
	301 TO 500 MBTU'S		1.00			
	501 TO 700 MBTU'S		1.00			
	701 TO 1,000 MBTU'S		1.00			
	EACH ADDITIONAL 1,000 MBTU'S ADD		1.00			
B-08	BOILER, EXTERNAL INSPECTION					
	120 MBTU'S OR LESS		1.00			
	121 TO 300 MBTU'S		1.00			
	301 TO 500 MBTU'S		1.00			
	501 TO 700 MBTU'S		1.00			
	701 TO 1,000 MBTU'S		1.00			
	EACH ADDITIONAL 1,000 MBTU'S ADD		1.00			
C-01	CLOCKS, CENTRAL SYSTEM		1.00			
C-02	REMOTE AIR INTAKE DAMPERS	31	2.00			
C-03	COILS, PREHEAT, REHEAT, REMOTE LOCATIONS	9	1.00			
C-04	CENTRAL MINI-COMPUTER-HVAC	13	4.00			
C-05	AUTOMATIC MIXING BX-PNEUMATIC OR ELEC	62	1.00			
C-06	CONTROLS,CENTRAL SYSTEM,HVAC PER DEVICE	491	1.00			
C-07	CONDENSATE OR VACUUM PUMP	10	1.00			
C-08	CENTRAL CONTROL PANEL PER DEVICE	1	1.00			
C-09	COOLING TOWER					
	UNDER 50 TONS		1.00			
	OVER 50 TO 500 TONS	5	1.00			
	OVER 501-1,000 TONS	4	1.00			
	EACH ADDITIONAL 500 TONS ADD 10.00 HRS					
	FOR EACH 500 TON INCREMENT		1.00			
C-10	COOLING TOWER , CLEANING					
	UNDER 50 TONS		2.00			
	OVER 50 TO 500 TONS	5	4.00			
	OVER 501-1,000 TONS	4	4.00			
	EACH ADDITIONAL 500 TONS ADD 10.00 HOURS					
	FOR EACH 500 TON INCREMENT		2.00			
C-11	EVAPORATIVE CONDENSER					
	50 TONS AND UNDER		1.00			
	OVER 50 TONS		1.00			
C-13	CRANE, ELECTRICAL		4.00			
C-14	CHAIN HOIST AND TROLLEY		1.00			
C-16	COOLING POND, SUITLAND HTG/COOL PLT ONLY		1.00			
C-21	CARTS & SCOOTERS, ENGINE /BATTERY POWERED					
	ENGINE POWERED		1.00			
	BATTERY POWERED		1.00			
C-24	CONDENSING UNIT REF.					
	COMFORT COOLING					
	20 TONS AND UNDER	33	6.00			
	OVER 20 TONS		1.00			
	CRITICAL					
	20 TONS AND UNDER		6.00			
	OVER 20 TONS		6.00			
D-01	DOOR, POWER OPERATED	5	2.00			
D-02	DUMBWAITER		4.00			
D-03	DRAINS, ROOF,GUTTER,DOWNSPOUT(PER 100 FT)	130	1.00			
D-04	DOOR, HYDRAULIC, ELECTRIC, PNEUMATIC OPERATED	27	4.00			
D-05	DOOR, MAIN ENTRANCE	32	2.00			
D-06	DRAINS,AREAWAY,DRIVEWAY,STORM	23	1.00			
D-07	SEDIMENT BASIN		2.00			
D-09	DISTILLER, WATER, LAB USE ONLY		1.00			
D-10	DOOR, HYDRAULIC, MANUAL OVERHEAD	13	1.00			
E-01	ELEVATOR, ELECTRIC OR HYDRAULIC 4 FL OR LESS		12.00			
	FOR EACH ADDITIONAL FL ADD		12.00			
E-02	ELEVATOR, ELECTRIC OR HYDRAULIC		4.00			
E-03	ELEVATOR, ELECTRIC OR HYDRAULIC		2.00			
E-04	ELEVATOR, ELECTRIC OR HYDRAULIC 4 FL OR LESS		1.00			
	FOR EACH ADDITIONAL FL ADD		1.00			
E-05	ELEVATOR, ELECTRIC INSPECTION 4 FL OR LESS		2.00			
	FOR EACH ADDITIONAL FL ADD		2.00			
E-06	ELEVATOR, ELECTRIC INSPECTION 4 FL OR LESS		1.00			
	FOR EACH ADDITIONAL FL ADD		1.00			
E-07	ELEVATOR, ELECTRIC INSPECTION 4 FL OR LESS		0.20			
	FOR EACH ADDITIONAL FL ADD		0.20			
E-08	ELEVATOR, HYDRAULIC INSPECTION 4 FL OR LESS		2.00			
	FOR EACH ADDITIONAL FL ADD		2.00			
E-09	ELEVATOR, HYDRAULIC INSPECTION 4 FL OR LESS		1.00			

	FOR EACH ADDITIONAL FL ADD		1.00		
E-10	ESCALATOR AND MOVING WALKS INSPECTION		1.00		
E-15	ESCALATOR		52.00		
E-16	ESCALATOR		1.00		
E-17	EXPANSION JOINTS IN PIPING	14	1.00		
E-18	EMERGENCY LIGHTS (WET CELL)		2.00		
E-19	EMERGENCY, LIGHTS CLOSED SYSTEM	90	2.00		
E-20	INDUCTION DISC OVERCURRENT RELAY		0.50		
E-21	OVER/UNDER VOLTAGE RELAY		0.50		
E-22	THERMAL OVERCURRENT RELAY		0.50		
E-23	INDUCTION DISC DIRECTIONAL OVERCURRENT RELAY		0.50		
E-24	POWER FACTOR /REVERSE CURRENT OR WATT TYPE RELAY		0.50		
E-25	GROUND FAULT OR TRANFORMER DIFF RELAY		0.50		
E-25A	BOLTED PRESSURE CONTACT SWITCH LOW VOLTAGE				
	GROUND FAULT OPERATED		0.50		
	STAND ALONE		0.33		
E-26	L/V MOLDED CASE CIRCUIT BREAKER		0.33		
E-27	L/V POWER CIRCUIT BREAKER(OVER 100 AMPS)		0.33		
E-28	MOTOR STARTER 100 HP & UP		0.33		
E-29	HIGH VOLTAGE OIL CIRCUIT BREAKER		0.50		
E-30	SWITCH BOARD MEDIUM VOLTAGE PER CUBICLE		0.33		
E-30A	SWITCH BOARD LOW VOLTAGE PER CUBICLE		0.33		
E-31	NETWORK PROTECTORS		1.00		
E-32	H/V NETWORK/POWER TRANSFORMER (OIL FILL)				
	POWER TYPE		0.50		
	NETWORK TYPE		0.50		
E-33	H/V NETWORK/POWER TRANSFORMER DRY				
	POWER TYPE		0.50		
	NETWORK TYPE		0.50		
E-34	DISCONNECT ISOLATING SWITCH PER SWITICH		0.50		
E-34A	DISCONNECT/ISOLATING SW, L/V				
	FUSED/NON-FUSED, 200 AMPS UP				
	200 AMPS TO 500 AMPS		0.50		
	OVER 500 AMPS		0.50		
E-35	MOTOR CONTROL CENTER INCLUDES 1ST 5 STARTERS				
	UNDER 100 HP	6	2.00		
	ADD .30 FOR EACH ADDITIONAL STARTER	4	2.00		
E-36	AUTOMATIC TRANSFER SWITCH		1.00		
E-37	BUS DUCT, L/V AND CONNECTORS				
	ALUMINUM				
	PER DISCONNECT		1.00		
	PER 10 FT SECTION		1.00		
	COPPER				
	PER DISCONNECT		0.33		
	PER 10 FT SECTION		0.33		
E-37A	BUS DUCT, L/V AND CONNECTORS ENCLOSED				
	ALUMINUM				
	PER DISCONNECT		1.00		
	PER 10 FT SECTION		1.00		
	OUTDOORS				
	PER DISCONNECT		1.00		
	PER 10 FT SECTION		1.00		
	COPPER				
	PER DISCONNECT		0.33		
	PER 10 FT SECTION		0.33		
E-38	HIGH VOLTAGE AIR CIRCUIT BREAKER		0.50		
E-39	SUPERVISIOR SET				
	1 TO 10 DEVICES		0.50		
	EACH ADDITIONAL DEVICE		0.50		
E-40	EMERGENCY GEN. GASOLINE, ELEC. OR NATURAL GAS		1.00		
E-41	EMERGENCY GENERATOR, ELECTRIC DIESEL ENGINES		4.00		
E-41A	EMERGENCY GENERATOR, ELECTRIC DIESEL ENGINES		1.00		
E-42	EMERGENCY GENERATOR ELECTRIC	1	52.00		
E-42A	EMERGENCY GENERATOR, ELECTRIC	1	12.00		
E-42B	EMERGENCY GENERATOR, ELECTRIC	1	4.00		
E-42C	EMERGENCY GENERATOR, ELECTRIC	1	2.00		
E-43	LEAD ACID BATTERY (PER CELL)		4.00		
E-43A	LEAD ACID BATTERY SEAL TYPE (GELL CELL)		4.00		
E-44	NICKEL CADMIUM BATTERY		4.00		
E-44A	PRIMARY BATTERY(DRY CELL)		12.00		
E-45	EMERGENCY GENERATOR STEAM TURBINE DRIVER		1.00		
E-45A	EMERGENCY GENERATOR STEAM TURBINE DRIVER		12.00		
E-46	BATTERY, UNINTERRUPTIBLE POWER SYSTEM		6.00		
E-46A	BATTERY, UNINTERRUPTIBLE POWER SYSTEM		4.00		
E-46B	BATTERY, UNINTERRUPTIBLE POWER SYSTEM		1.00		
E-49	EMERGENCY PUMPS AND VENTILATORS		1.00		

E-50	EMERGENCY PUMPS AND VENTILATORS		4.00		
E-51	MOTOR STARTERS, LESS THAN 100HP	98	1.00		
	AND LESS THAN 600 VOLTS(FORMERLY E-35A)				
E-52	AUXILLARY PROTECTIVE RELAY		0.50		
E-56	DIMMER AND CONTROL, STAGE AND GENERAL LIGHTING		2.00		
E-57	LOW VOLTAGE DRY TYPE TRANSFORMER		0.33		
	(30 KVA & UP, 600 VOLTS OR LESS)				
E-58	POWER DISTRIBUTION SYSTEM		2.00		
E-59	UNINTERRUPTILE POWER SYSTEM		4.00		
F-01	ALARM CHECK VALVES & ACCESSORIES		12.00		
F-01A	ALARM CHECK VALVES & ACCESSORIES		4.00		
F-02	DRY-PIPE,DELUGE,& PREACTION VALVES	2	52.00		
F-02A	DRY-PIPE,DELUGE,& PREACTION VALVES	2	4.00		
F-02B	DRY-PIPE,DELUGE,& PREACTION VALVES	2	1.00		
F-03	FIRE POST INDICATOR VALVE		1.00		
F-04	FIRE CONTROL VALVE 4"+ INTER WATER DISTRIB SYS	29	12.00		
F-04A	FIRE CONTROL VALVE 4"+ INTER WATER DISTRIB SYS	29	4.00		
F-04B	FIRE CONTROL VALVE 4"+ INTER WATER DISTRIB SYS	29	1.00		
F-05	FIRE PUMP DIESEL ENGINE DRIVEN		52.00		
F-05A	FIRE PUMP DIESEL ENGINE DRIVEN		12.00		
F-05B	FIRE PUMP DIESEL ENGINE DRIVEN		1.00		
F-05C	FIRE PUMP DIESEL ENGINE DRIVEN OLD P-7		1.00		
F-06	FIRE PUMP ELECTRIC MOTOR DRIVEN	1	52.00		
F-06A	FIRE PUMP ELECTRIC MOTOR DRIVEN	1	12.00		
F-06B	FIRE PUMP ELECTRIC MOTOR DRIVEN	1	1.00		
F-08	FIRE HOSE(1 1/2 INCH RACKED IN BLDG.)		12.00		
F-08A	FIRE HOSE(1 1/2 INCH RACKED IN BLDG.)		1.00		
F-09	FIRE DEPARTMENT HOSE CONNECTIONS STANDPIPE	72	12.00		
F-09A	FIRE DEPARTMENT HOSE CONNECTIONS STANDPIPE	72	0.20		
F-10	FIRE DEPART PUMP CONNECTION STANDPIPE/SPRINKLER	3	12.00		
F-11	FIRE DOORS-STAIRWAYS & EXITWAYS(SWINGING)	193	4.00		
F-12	FIRE DOORS-SLIDING AND VERTICAL ROLLING		4.00		
F-13	FIRE SUPERVISORY SIGNALS-TESTING		4.00		
F-14	AUTOMATIC FIRE DETECTIONS-SMOKE DETECTORS		1.00		
F-14A	AUTOMATIC FIRE DETECTIONS-WATER FLOW ALARMS		4.00		
F-14B	AUTOMATIC FIRE DETECTIONS-HEAT DETECTORS		1.00		
F-14C	AUTO FIRE DETECTIONS-OPERATION TESTING PER ZONE		2.00		
F-15	FIRE ALARM CONTROL PANEL REMOTE ANNUNCIATORS		1.00		
F-15A	FIRE ALARM CONTROL PANEL SPECIAL SYSTEMS		1.00		
F-15B	CENTRAL STATION-TRANSMITTERS		1.00		
F-15C	CENT STATION RECIEVER & RETRANSMISSION EQUIP.		252.00		
F-16	FIRE ALARM SYSTEM RECORDER		52.00		
F-16A	FIRE ALARM SYSTEM EVENT PRINTER		4.00		
F-16B	FIRE ALARM SYSTEM AUDIO CONTROL PANEL		1.00		
F-16C	FIRE ALARM SYSTEM REMOTE AMPLIFIER		1.00		
F-16D	FIRE ALARM SYSTEM RECORDER		1.00		
F-17	MANUAL FIRE ALARM STATION CODED / UNCODED		1.00		
F-18	FIRE & SMOKE DAMPERS		0.50		
F-19	FIRE HYDRANT(DRY OR WET BARREL)		2.00		
F-19A	FIRE HYDRANT FLOW TEST(DRY OR WET BARREL)		0.20		
F-20	SPRINKLER HEADS PER 1,000 SQ. FT.	483	1.00		
	SPRINKLER HEADS, EACH		1.00		
F-20A	ANTIFREEZE SOLUTION IN SPRINKLE AREAS PER 1,000		1.00		
F-21	WATER SPRAY, EXTINGUISHING SYSTEM		12.00		
F-21A	WATER SPRAY, EXTINGUISHING SYSTEM		1.00		
F-22	FIRE EXTINGUISHER - STORED PRESSURE W/GUAGE		1.00		
F-22A	FIRE EXTINGUISHER - NON STAINLESS STEEL - GAUGE		0.17		
F-22B	FIRE EXTINGUISHER - NON RECHARGEABLE		1.00		
F-23	FIRE EXTINGUISHER - GAS CART/CYLINDER - NO GAUGE		1.00		
F-24	FIRE EXTINGUISHER-INSPECTION	341	12.00		
F-25	FIRE EXTINGUISHER-HYDRO-TESTING				
	CARBON DIOXIDE (CO 2)		0.20		
	STORED PRESSURE, CARTRIDGE TYPE		0.08		
F-26	FIRE EXTINGUISHER SYSTEM, CO2, HIGH PRESSURE		12.00		
	HALON, DRY CHEMICAL INSPECTION				
F-26A	FIRE EXTINGUISHER SYSTEM, CO2, HIGH PRESSURE		2.00		
	HALON, DRY CHEMICAL				
F-27	FAN, CENTRIFUGAL				
	UP TO 5,000 CFM	33	1.00		
	5,001-10,000 CFM	4	1.00		
	10,001-15,000 CFM	1	1.00		
	15,001-20,000 CFM		1.00		
	.30 FOR EACH ADDITIONAL 5,000 CFM OVER 20,000 CFM	15	1.00		
F-28	FILTER, MOVABLE CURTAIN, OIL COATED		3.00		
F-29	FILTER, ROLL TYPE, DISPOSABLE MEDIA	2	4.00		
F-30	FILTER, VISCOUS TYPE	49	4.00		

F-31	FILTER,ROLL TYPE, DISPOSABLE, MANUAL OR ELECTRIC		1.00		
F-32	FILTER,THROW AWAY	1381	4.00		
F-33	FILTER,ELECTROSTATIC		3.00		
F-36	FAN,PROPELLER,24 DIA OR LARGER	5	1.00		
F-38	LIGHTNING PROTECTION (PER DOWN CONDUCTOR)		1.00		
F-39	CAFETERIA EXHAUST HOOD SYS PER 10 FT DUCT WORK		2.00		
F-40	FILTER, BAG TYPE DEPTH				
	4 TO 6 INCHES		1.00		
	6 TO 12 INCHES		1.00		
	12 TO 24 INCHES		1.00		
	24 TO 48 INCHES		1.00		
F-43	FILTER, CHARCOAL		3.00		
F-44	FOUNTAIN, MEMORAL OR DECORATIVE		2.00		
F-46	FIRE PLACE		12.00		
F-47	FIRE PLACE		4.00		
F-49	FILTER, CONTROL AIR	300	4.00		
G-01	FUEL OIL FILTER/STRAINER		2.00		
G-02	GREASE TRAP	1	12.00		
G-03	GATE/FENCES SECURITY AND ACCESS		2.00		
H-01	HOT WATER CONVERTER(STEAM)		1.00		
H-02	HOT WATER HEATER-GAS		1.00		
H-03	HOT WATER HEATER-ELECTRIC	6	1.00		
H-04	HOT WATER EXCHANGER	1	1.00		
H-05	HOT WATER HEATER-STEAM				
	UP TO 1,000 GALLONS	2	1.00		
	.50 M/H FOR EACH ADDITIONAL 1,000 GALLONS		1.00		
H-06	HOT AIR FURNACE				
	120 MBTUS OR LESS		1.00		
	121 TO 300 MBTUS		1.00		
	301 TO 500 MBTUS		1.00		
	501 TO 700 MBTUS		1.00		
	701 TO 1,000 MBTUS		1.00		
	OVER 1,000 MBTUS		1.00		
H-12	HEATER, FUEL OIL UNIT		1.00		
H-14	HOIST, LIGHTING		1.00		
H-15	HOIST, ELECTRIC	1	1.00		
I-01	INCINERATOR		1.00		
I-02	FAN COIL UNIT,UNDER WINDOW TYPE	7	1.00		
I-03	INDUCTION UNIT, UNDER WINDOW TYPE	1347	1.00		
I-04	FAN COIL UNIT,CEILING HUNG	30	1.00		
I-05	FAN COIL UNIT CEILING HUNG/VAV BOX ELEC HEAT	38	1.00		
K-001	PLAY STRUCTURE-SURFACING,ACCESS,SIZE,STORAGE		6.00		
K-002	PLAY STRUCTURE-SLIDING EQUIPMENT		4.00		
K-003	PLAY STRUCTURE-SWING		6.00		
K-004	PLAY STRUCTURE-CLIMBIMG EQUIPMENT		6.00		
K-005	PLAY STRUCTURE-ROTATING,SPRING ROCKING,SEESAWS		6.00		
K-006	PLAY STRUCTURE-SAND & WATER PLAY EQUIPMENT		6.00		
K-007	PLAY STRUCTURE-SIGNS,TREES,PATHWAYS		2.00		
K-008	PLAY STRUCTURE-PLAYHOUSE GARDEEN		1.00		
K-009	PLAY STRUCTURE-CARRIAGES AND BUGGIES		1.00		
K-100	KITCHEN EQUIPMENT-DISH/TRAY, BUSING CONVEYOR		4.00		
K-100A	KITCHEN EQUIPMENT-DISH/TRAY, BUSING CONVEYOR		2.00		
K-101	KITCHEN EQUIPMENT-DISHWASHING MACHINE,ELECTRIC		4.00		
K-101A	KITCHEN EQUIPMENT-DISHWASHING MACHINE,ELECTRIC		2.00		
K-101B	KITCHEN EQUIPMENT-DISHWASHING MACHINE,STEAM FIRED		2.00		
K-102	KITCHEN EQUIPMENT-FRYER		4.00		
K-102A	KITCHEN EQUIPMENT-FRYER		2.00		
K-103	KITCHEN EQUIPMENT-GRILL		4.00		
K-103A	KITCHEN EQUIPMENT-GRILL		2.00		
K-104	KITCHEN EQUIPMENT-ICE CREAM & SHAKE MAKER		4.00		
K-104A	KITCHEN EQUIPMENT-ICE CREAM & SHAKE MAKER		2.00		
K-105	KITCHEN EQUIPMENT-ICE MAKER		4.00		
K-105A	KITCHEN EQUIPMENT-ICE MAKER		2.00		
K-106	KITCHEN EQUIPMENT-KETTLE		4.00		
K-106A	KITCHEN EQUIPMENT-KETTLE		2.00		
K-107	KITCHEN EQUIPMENT-OVEN		4.00		
K-107A	KITCHEN EQUIPMENT-OVEN		2.00		

K-108	KITCHEN EQUIPMENT-RANGE		4.00		
K-108A	KITCHEN EQUIPMENT-RANGE		2.00		
K-109	KITCHEN EQUIPMENT-REFRIGERATOR/FREEZERS(WALK-IN		4.00		
K-109A	KITCHEN EQUIPMENT-REFRIGERATOR/FREEZERS(WALK-IN		2.00		
K-110	KITCHEN EQUIPMENT-BOILER/GENERATORS,STEAM		4.00		
K-110A	KITCHEN EQUIPMENT-BOILER/GENERATORS,STEAM		2.00		
L-01	LAWN MOWER & EDGER		1.00		
L-02	LOADING RAMP, ADJUSTABLE	1	4.00		
L-03	LIGHTING,SPECIAL FIXTURE	1141	1.00		
L-04	LIGHTING,OUTSIDE	54	1.00		
	INCANDESCENT		1.00		
	FLUORESCENT,MERCURY VAPOR & HI.PRESS.SODIUM		0.20		
L-05	LAWN SPRINKLER, PER NOZZLE		1.00		
L-06	LOCOMOTIVE, DIESEL (DFC ONLY)		2.00		
L-07	LOCOMOTIVE, DIESEL ELECTRIC CONTROLS (DFC ONLY)		2.00		
L-08	SPOTLIGHTS, FIXED OR PORTABLE	2	4.00		
L-10	LIFT, ELECTRIC, STAGE SCREEN PORTABLE		1.00		
M-01	MANHOLE, ELECTRIC		1.00		
M-02	MANHOLE, SEWER	6	4.00		
M-03	MOTORS PM 1 - 7.5 HP	95	1.00		
	MOTORS 7.5 - 50 HP	100	1.00		
	MOTORS OVER 50HP	10	1.00		
M-03A	MOTORS PREDICTIVE MAINTENANCE OVER 10 HP				
	MOTORS 10 - 50 HP		1.00		
	MOTORS OVER 50 HP		1.00		
M-04	MANHOLE, WATER/STEAM/FUEL OIL		2.00		
	HOT, CHILLED AND CONDENSER WATER				
M-05	MATERIAL HANDLING EQUIPMENT ELECTRIC LIFT TRUCK		6.00		
M-05A	MATERIAL HANDLING EQUIPMENT ELECTRIC LIFT TRUCK		1.00		
M-06	MATERIAL HANDLING EQUIPMENT,ENGINE DRIVEN		2.00		
M-07	MATERIAL HANDLING EQUIPMENT		1.00		
M-08	MAGNET DRIVE	12	4.00		
M-09	MOBIL EQUIPMENT		1.00		
M-10	MOTOR CONTROLLER UNIT (600 VOLTS AND ABOVE)		1.00		
M-11	MOTOR, 600 VOLTS OR 200 HP AND ABOVE		1.00		
P-01	PAPER BALER		1.00		
P-02	PNEUMATIC TUBE SYSTEM		1.00		
P-04	PUMP,CENTRIFUGAL 1- 24 HP	45	1.00		
	25 -100HP	16	1.00		
	OVER 100HP		1.00		
P-06	PUMP, VACUUM		2.00		
R-01	RADIATOR, HEATING	25	0.20		
R-02	ROOF INSPECTION(PER 100 SQ FT) BUILT UP TYPE	1450	2.00		
R-02A	ROOF INSPECTION(PER 100 SQ FT) SHINGLE TYPE		2.00		
R-03	REFRIG. MACHINE(ABSORPTION)UP TO 500 TONS		1.00		
	OVER 500 THRU 1000 TONS		1.00		
	OVER 1000 TONS		1.00		
R-04	CENTRAL PKG.CHILLED WATER UNIT				
	COMFORT COOLING/DRINKING WATER UNIT				
	25 TONS AND UNDER		1.00		
	25 TO 50 TONS		1.00		
	51 TO 75 TONS	4	4.00		
	76 TO 100 TONS	1	4.00		
	100 TO 150 TONS		1.00		
	ADD 10 M/HRS FOR EACH ADDITIONAL COMPRESSOR	2	4.00		
	SPECIAL PURPOSE(COMPUTER COOLING)				
	25 TONS AND UNDER		3.00		
	25 TO 50 TONS		3.00		
	50 TO 75 TONS		3.00		
	75 TO 100 TONS		3.00		
	100 TO 150 TONS		3.00		
	ADD 10 M/HRS FOR EACH ADDITIONAL COMPRESSOR		3.00		
R-05	REFRIGERATION MACHINE, CENTRIFUGAL				
	UP TO 50 TONS		1.00		
	51 THRU 250 TONS		1.00		
	251 THRU 500 TONS		1.00		
	501 THRU 750 TONS	2	1.00		
	751 THRU 1000 TONS		1.00		
	ADD 20 M/HRS FOR EACH ADDITIONAL 250 OVER 1,000		1.00		
R-06	REFRIGERATION MACHINE, RECIPROCATING AND SCROLL				
	50 TONS AND UNDER		1.00		

	50 TO 100 TONS		1.00		
	100 TO 150 TONS		1.00		
	ADD 4 M/HRS FOR EACH ADDITIONAL 50T INCREMENT		1.00		
R-07	REFRIGERATION MACHINE, SCREW				
	50 TONS AND UNDER		1.00		
	51 THRU 250 TONS		1.00		
	251 THRU 500 TONS		1.00		
	ADD 20 M/HRS FOR EACH ADDITIONAL 250 TON INCREMENTS		1.00		
R-08	CONTROL PANEL, CENTRAL REFRIGERATION UNIT	11	1.00		
R-09	RADITION, BASEBOARDS/CONVECTORS		0.50		
	(STEAM,HOT WATER OR ELECTRIC)PER LINEAR FOOT				
R-10	RAILROAD TRACKAGE(PER 1000 FT)		1.00		
R-11	REFRIGERATION CONTROLS , CENTRAL SYSTEM		1.00		
R-12	RAILROAD TURNOUT		1.00		
R-13	NON-DESTRUCTIVE CHILLER TUBE ANALYSIS	19	0.33		
R-14	HIGH EFFICIENCY PURGE UNITS	5	1.00		
R-15	REFRIGERANT MONITOR	2	12.00		
S-02	SEWAGE EJECTOR, PNEUMATIC TANK TYPE EJECTORS	6	1.00		
S-04	SOOT BLOWER		1.00		
S-05	SWEEPER		2.00		
S-06	SEWAGE EJECTOR, SUMP TYPE		1.00		
S-07	SUMP PUMP	10	1.00		
S-08	STRAINERS, Y TYPE	231	1.00		
S-09	STRAINERS, BOLTED FLANGE (WATER/STEAM)				
	6 TO 14 BOLTS	16	1.00		
	15 TO 34 BOLTS		1.00		
	35 TO 58 BOLTS		1.00		
	OVER 58 BOLTS		1.00		
S-10	SCRUBBING MACHINE (BATTERY/PROPANE)		4.00		
S-11	SNOW BLOWER		1.00		
S-14	DUAL STRAINER		1.00		
S-15	BACKWASH STRAINER		1.00		
T-01	TANK, WATER (ALL TYPES)	24	0.33		
T-02	TANK--AIR/REFRIGERANT/L.P.GAS	6	1.00		
T-03	TANK, FUEL OIL STORAGE		0.25		
T-04	UNDERGROUNG STORAGE TANK, UST		12.00		
T-05	TRASH COMPACTOR		1.00		
T-06	TANK, CHEMICAL		1.00		
T-08	Traps				
	LOW PRESSURE	230	0.20		
	HIGH PRESSURE	35	1.00		
T-09	TURBINE, STEAM		1.00		
T-10	TELECOMMUNICATIONS		4.00		
T-12	FLUID DRIVE TRANSMISSIONS		1.00		
U-01	UNIT HEATER (STEAM AND HOT WATER)		1.00		
U-02	UNIT HEATER (GAS AND OIL FIRED)		1.00		
V-01	VACUUM CLEARNER,HEAVY DUTY,TANK,(ELECTRIC)		2.00		
V-02	VALVE, SAFTEY	40	12.00		
V-03	VALVE, REGULATING	27	1.00		
V-04	VALVE, FIRE SYSTEM PRESSURE REGULATING TYPE		12.00		
V-04A	VALVE, FIRE SYSTEM PRESSURE REGULATING TYPE		1.00		
V-04B	VALVE, FIRE SYSTEM PRESSURE REGULATING TYPE		0.20		
V-05	VALVE, MANUALLY OPERATED				
	MAIN LINE ONLY	345	1.00		
	OTHER OVER 2 INCHES	91	0.20		
V-06	VALVE, MOTOR OPERATED	17	1.00		
V-07	VALVES.HYDR/PNEU/ELEC		1.00		
V-08	VALVE, CRITICAL CHECK	27	1.00		
V-09	BACKFLOW PREVENTOR				
	UP TO 1 1/2 INCHES	7	1.00		
	1 1/2 TO 2 INCHES		1.00		
	2 TO 3 INCHES	1	1.00		
	3 TO 4 INCHES	2	1.00		
	4 TO 6 INCHES		1.00		
	6 TO 8 INCHES		1.00		
	OVER 8 INCHES		1.00		
V-10	VACUUM SYSTEM, CENTRALIZED		1.00		
W-01	DRINKING WATER FILTER SYSTEM	5	4.00		
W-02	EYE WASH, EMERGENCY	2	12.00		
W-03	WATER SOFTENER		2.00		
W-04	FILTER, WATER		2.00		
W-04A	FILTER, WATER, REPLACEABLE CARTRIDGE		4.00		
W-05	WINDOW WASHING SCAFFOLD, POWER OPERATED		1.00		
W-07	WHEEL CHAIR LIFT	2	6.00		
W-08	WATER TREATMENT FOR COOLING TOWER	21	12.00		

W-09	WATER TREATMENT FOR HEATING SYSTEMS		12.00		
X-21	KEY CARD SYSTEM		4.00		
X-22	FLAG POLE, ELECTRIC		1.00		
X-23	HEATER UNIT ELECTRIC	19	1.00		
X-24	DUCT HEATER, ELECTRIC		1.00		
X-25	HEATED AIR CURTAIN,ELECTRICAL		1.00		
	EACH ADDITIONAL FOOT ADD				
X-26	SOLAR HEATING SYSTEM		2.00		
X-26A	SOLAR HEATING SYSTEM (SOLAR COLLECTORS)		1.00		
X-29	CHEMICAL FEEDER	1	2.00		
X-32	PARKING ARM GATES	2	1.00		
X-37	EMERGENCY SHOWER	1	1.00		
X-39	SEPTIC TANK AND DRAIN FIELD		1.00		
X-41	TRACTOR, DIESEL , MONTHLY		12.00		
X-41A	TRACTOR, DIESEL , SEMIANNUAL		2.00		
X-41B	TRACTOR, DIESEL , ANNUAL		1.00		
X-43	FUME HOOD		2.00		
X-44	CAGE WASHER		4.00		
X-45	BIO SAFETY CABINETS		1.00		
X-46	TUNNEL WASHER		4.00		

Below the list of the non schedule line items that are a part of this contract and are associated with the Mary E. Switzer building.

NSL 1 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Carbon Cell Frequency: Quarterly
Special Instructions:
1. Review the Operation Manual for instruction.
2. **Caution** Proper eye protection is required. Also a dust respirator must be worn to avoid breathing excessive carbon dust.

Check Points:
1. Close Water inlet B & C outlet and valve H to carbon cells and open drain valves F.
2. Remove cell cover and, after water has drained, remove clean out cover at bottom of cell.
3. Dump spent carbon out the clean-out port until cell is empty.
4. Replace clean out cover o-ring as necessary.
5. Replace cleanout cover and refill cell by pouring fresh carbon in through the top.
6. Fill carbon cell to about 15 inches down from top to allow room for expansion during backwash.
7. Replace cell cover and proceed with back washing.

Note: Backwashing is required for new carbon beds.
Backwash
1. Close upper valve B to carbon cell and open bypass valve C.
2. Open backwash valve A and let water run 10 to 15 minutes or until clear.
3. When backwash id complete, close backwash valve A and bypass valve C and open inlet valve B and out let valve H
4. Filter is now in service.

Recommended Tools, Materials, and Equipment:
1. Rags.
3. Bucket

NSL 2 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Phosphate Filter Elements Frequency: Monthly
Special Instructions:
1. Review the Operation Manual for instruction and type of Phosphate crystals to be used. Reference the chart below for amount of phosphate.

Treatment to be used

Amount of water Treated per day	Amount of phosphate crystals	Amt of phosphate crystals
	Initial Charge	Monthly Recharge
100 Gals	8 oz.	2 oz.
125 Gals	10 oz.	2 ½ oz.
150 Gals	12 oz.	3 oz.
200 Gals	1 lb.	4 oz.
400 Gals	2 lb.	8 oz.
600 Gals	3 lb.	12 oz.
800 Gals	4 lb.	16 oz.

Check Points:
1. Close Water in & out valves.
2. Depress pressure relief button to release trapped air or water pressure.

3. Unscrew filter body from filter cover.
4. Rotate canister housing to loosen.
5. Slide canister down & off standpipe.
6. Fill with the appropriate amount of phosphate
7. Re-install canister hand tight.
8. Open water out & in and valves.
9. Filter is now in-service.
10. Check for leaks.

Recommended Tools, Materials, and Equipment:
1. Rags.
3. Bucket

NSL 3 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
ESB Control, Frequency: Quarterly
Application:
This guide card applies to Emergency Stop Button (ESB) wiring and control interface back to the EMS/BAS. The building is equipped with an ESB system which when activated shuts down the building air supply.
Special Instructions:
1. Obtain and review manufacturer's instructions and precautions.
2. Schedule PM using the facilities schedule to prevent disruption.
3. O&M staff is required become familiar with the ESB system.
4 Test complete building isolation system quarterly.
5. Perform C-2 Remote Air Intake Dampers semi-annually is accordance with this GSA guide card.
6. Develop and check chart that will be used to document the testing.
7. The O&M contractor is to make recommendations as needed to improve the system and or found deficiencies. This shall be submitted the COR of this contract.

Check Points: ESB unit:
1. Remove necessary access covers and panels.
2. Check supply voltage.
3. Tighten all connections to unit etc.
4. Clean interior of housing.
5. Reassemble unit.
6. Test operation of ESB.

Special Instruction for ESB shut down:
Test the building isolation system per the 2105 schedule.
Testing the system will require activation of each ESB.
Building isolation testing is to take place 15 minutes before the first fan shuts down at the end of any test day.
All fans connected to the ESB system are to be in or placed in operation before ESB activation.
The ESB each remote location must be locked into the "in position" and must be pushed again to unlock after fans shut down.
3.7 A-11 and F-27 equipment will be shut down by the (ESB).
3.8 Remotely located dampers associated with the system will modulate closed after activation.
After equipment shuts down visually inspect each location to assure that all fans shut down and all dampers close.
3.10 When fans are released dampers will modulate open and fans will start.

Recommended Tools, Materials and Equipment:
1. Standard tools.
2. Cleaning supplies and materials. Consult the Material Safety Data Sheet (MSDS) for hazardous ingredients and proper Personal Protective Equipment (PPE).
3. Multi-meter.
4. Amp-meter.
5. Lubricants. Consult the MSDS for hazardous ingredients and proper PPE.

NSL 4 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Trap Primer Frequency: Annual
Application:
This guide card applies to those trap primers that are related to air handler traps. Trap Primer is a electronic trap priming device. Primer functions at a pre-selected time, delivering potable water across an air gap funnel. (Caution: This unit is not a pressure feed trap priming system. The device must always be higher than the drains it serves. Trap supply lines should be sloped to discharge point.
Special Instructions:
1. Carefully remove screws, cover, and check.
2. Inspect for corrosion, loose or damaged wiring.
3. Clean inside cabinet.
4. Inspect the check valve for proper operation.
5. Depress test button and observe solenoid operation.
6. Following the manufacturer's procedures, test and calibrate the device.

7. Verify that there are no leaks.
Recommended Tools, Materials and Equipment:
1. Cleaning equipment and materials. Consult the Material Safety Data Sheets (MSDS) for hazardous ingredients and proper personal protective equipment (PPE).

NSL 5 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
Dual Seal Filter Elements Frequency: Quarterly
Special Instructions:
1. Review the Operation Manual for instruction and type of particulate cartridges to be used. Element would only be changed if DPS indicates or annually whichever comes first.
Check Points:
1. Close Water in & out valves,
2. Depress pressure relief button to release trapped air or water pressure.
3. Unscrew filter body from filter cover.
4. Rotate filter cartridge (2) turns to loosen "DualSeal" o-rings.
5. Slide filter cartridge down & off standpipe.
6. Slide new filter cartridge onto standpipe.
7. Screw Filter body hand tight onto filter cover.
8. Open water out & in and valves.
9. Filter is now in-service.
Fill if required:
1. With valve D Closed crack open inlet valve E.
2. Fill up filter housing.
3. Press air release button until all air is removed.
4. Check for leaks. Retighten if necessary or replace gasket.
5. Open valve D and Valve C to allow water into carbon cell.
6. With air vents G open, crack water inlet valve to allow carbon cell to fill with water.
7. Check for leaks
Recommended Tools, Materials, and Equipment:
1. Rags.
2. Bucket

NSL 6 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
UV lamps, Frequency: SemiAnnual
Germicidal
Special Instruction:
1. Use proper UV eye protection and plastic face shield.
2. Review manufacturer's instructions.
3. Consult the Material Data Safety Sheet (MSDS) for proper personal protective equipment.
Check points:
1. Inspect for structural defects.
2. Push door safety switch and observe light operation. Proper eye protection must be worn (See manufacturer's instructions.)
3. Replace any defective lamp with OEM replacements if necessary.
4. Clean exterior with dry cloth.
5. If unit has to be discarded, review the Material Safety Data Sheet (MSDS) for proper disposal of lamp.
6. Clean up work area.
Recommended Tools, Materials and Equipment:
1. Cleaning equipment and materials. Consult the Material Safety Data Sheet MSDS.
2. Volt Meter.

NSL 7 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Lead Miser Filter Frequency: Monthly
Special Instructions:
1. Review the Operation Manual for instruction and type of cartridge to be used. Water samples should be analyzed by a laboratory to determine if frequency can be changed.
Check Points:
1. Close Water in and out water valves.
2. Depress pressure relief button to release trapped air or water pressure.
3. Unscrew filter body from filter cover.
4. Rotate filter cartridge to remove.
5. Slide filter cartridge down & off standpipe.
6. Slide new filter cartridge onto standpipe.
7. Screw Filter body hand tight onto filter cover.
8. Open water out and water in and valves.
9. Filter is now in-service.
10. Check for leaks.

Recommended Tools, Materials, and Equipment:
1. Rags.
2. Bucket

NSL 8 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
UV lamps on Chiller Frequency: Monthly
Germicidal
Special Instruction:
1. Use proper UV eye protection and plastic face shield.
2. Review manufacturer's instructions.
3. Consult the Material Data Safety Sheet (MSDS) for proper personal protective equipment.

Check points:
1. Inspect for structural defects.
2. Pull lamp partially from its sleeve to inspection or operation. Proper eye protection must be worn (See manufacturer's instructions.)
3. Inspect or replace protective sleeve if necessary.
3. Replace any defective lamp with OEM replacements if necessary.
4. Clean exterior with dry cloth.
5. If unit has to be discarded, review the Material Safety Data Sheet (MSDS) for proper disposal of lamp.
6. Clean up work area.

Recommended Tools, Materials and Equipment:
1. Cleaning equipment and materials. Consult the Material Safety Data Sheet MSDS.
2. Volt Meter.

NSL9 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
Remove dirt, debris, trash from exterior window moats Frequency: Monthly
Special Instruction:
1. Provide OSHA approved access to locations where work is to be performed.
2. Review manufacturer's instructions of tools being used.
3. Implement sight specific safety procedures and adherence to the safety plan.

Location and size:

East Side moat	167 LF x 7 LF = 1,169 SF
South side moat on the East side	83 LF x 7 LF = 581 SF
South side moat on the West side	183 LF x 7 LF = 1,281 SF
West side moat	167 LF x 7 LF = 1,169 SF
South side damper outlet box 1	5 LF x 7 SF = 35 SF
South side damper outlet box 2	5 LF x 7 SF = 35 SF
South side damper outlet box 3	5 LF x 7 SF = 35 SF
North side damper outlet box 1	5 LF x 7 SF = 35 SF
North side damper outlet box 2	5 LF x 7 SF = 35 SF
North side damper outlet box 3	5 LF x 7 SF = 35 SF

Check points and required actions:
Remove all trash, leaves, dirt, miscellaneous objects, and other debris from each moat.
Bag debris and transport in to the GSA trash receptacle located on the loading dock.
Test water flow at each drain.
Crown traps over each drain and topped with rubber grated material is the approved drain guard.
Flat type drain covers are to be removed and a crown system maintained.
GSA will provide all crown traps for installation by the contractor.
Clean out moat drain trap.

NSL 10 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
Tin Roof Drainage System Cleaning Frequency: Monthly
Remove dirt, debris, trash from exterior tin roof and tin roof drainage system.
Special Instruction:
1. Provide OSHA approved access to locations where work is to be performed.
2. Review manufacturer's instructions of tools being used.
3. Implement sight specific safety procedures and adherence to the safety plan.

Location and size:
1. Roof area between wings 1 and 2 110 LF by 3 LF x 2 Sides =
2. Roof area between wings 2 and 3
3. Roof area between wings 3 and 4
4. Roof area between wings 4 and 5
5. Roof area between wings 5 and 6

Check points and required actions:
Remove all trash, leaves, dirt, miscellaneous objects, and other debris from each moat.

Bag debris and transport in to the GSA trash receptacle located on the loading dock.
Test water flow at each drain.
Crown traps are to be maintained over each drain.
Flat type drain covers are to be removed and a crown system maintained.
GSA will provide all crown traps for installation by the contractor.
Clean out moat drain trap.
Provide access for inspection.

NSL 11 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
Tin Roof Drainage System Cleaning Frequency: Monthly
Remove dirt, debris, trash from exterior tin roof and tin roof drainage system.
Special Instruction:

1. Provide OSHA approved access to locations where work is to be performed.
2. Review manufacturer's instructions of tools being used.
3. Implement sight specific safety procedures and adherence to the safety plan.

Location and size:

1. Roof area between wings 1 and 2 110 LF by 3 LF x 2 Sides = 33 SF
2. Roof area between wings 2 and 3 110 LF by 3 LF x 2 Sides = 33 SF
3. Roof area between wings 3 and 4 110 LF by 3 LF x 2 Sides = 33 SF
4. Roof area between wings 4 and 5 110 LF by 3 LF x 2 Sides = 33 SF
5. Roof area between wings 5 and 6 110 LF by 3 LF x 2 Sides = 33 SF

Check points and required actions:
Remove all trash, leaves, dirt, miscellaneous objects, and other debris from each moat.
Bag debris and transport in to the GSA trash receptacle located on the loading dock.
Test water flow at each drain.
Crown traps are to be maintained over each drain.
Flat type drain covers are to be removed and a crown system maintained.
GSA will provide all crown traps for installation by the contractor.
Clean out moat drain trap.

NSL 12 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide
Effective Date: July, 2008
Spirax Sarco Pivotrol Condensate Pump Frequency: Annual
Special Instructions:
Schedule outage with personnel.
Obtain and review manufacturer's instructions for maintenance and troubleshooting of the units.
Deenergize, lock out and tag circuit.
Review the Standard Operating Procedures for "Controlling Hazardous Energy Sources".
5. Use insulated safety gloves and tools.
6. Review manufacturer's instruction and ASME
Refer to O&M manual for installation and product submissions.
Create a GSA approved check chart for PM procedure at contract start.
Submit check chart as part of the yearly PM.

Check points:

1. Open y type strainer and clean screen on steam line that pressurizes the tank.
2. Test steam traps and verify proper operation on steam line that pressurizes the tank.
3. Test check valves for proper operation.
4. Clean exterior with dry cloth.
5. Clean up work area and fix any leaks resulting from the checkpoints.
6. Perform maintenance checkpoints as outlined by the manufacturer.

NSL 13 Non-Schedule line Item
Glycol Feeder systems Frequency: Semiannual
Application:
This guide card applies to tank type glycol chemical feeders with control panel, pump, strainer, pressure switches and gauges.
Special Instructions:
Review the EPA and associated MSDS for proper handling and use of Glycol to be used.
Consult the motor manufacture for motor maintenance instructions.
Check Points:
1. Inspect Bronze rotary gear pump. Remove the cover screws to pull cover.
2. Inspect seals and bearing area of pump.
3. Check pump and driver are aligned.
4. Check reservoir glycol level of feeder storage tank and fill with proper percentage mixture, if necessary. (refer to operation manuals for glycol mixture)
5. Check for leaks around fitting and connections.
6. Inspection gauge and replace if necessary.

7. Check operation of pressure relief valve if equipped.
8. Perform function check of Hand-off-auto (HOA) and inspected for damage provide inspection report.
9. Wipe and clean exterior of equipment.
10. Locate and repair system for leaks.

Recommended Tools, Materials, and Equipment:

1. Standard tools - basic
2. Goggles
3. Cleaning materials. Consult the Material Safety Data Sheets (MSDS) for hazardous ingredients and proper personal protective equipment (PPE).

NSL 14 Non-Schedule Line Item
General Services Administration Preventive Maintenance Guide

Effective Date: July, 2008
Heat recovery Unit Frequency: Annual
Special Instructions:

1. Schedule shutdown with operating personnel, as needed.
2. Review manufacturer's instructions.
3. Review the Standard Operating Procedure for "Controlling Hazardous Energy Sources."
4. Deenergize, lock out and tag electrical circuit(s).
5. Use OSHA approved method to gain access above ceiling.

Check points:

6. Clean coils by brushing, blowing, vacuuming, or pressure washing.
7. Check coils for leaking, tightness of fittings.
8. Use fin comb to straighten coil fins.
9. Flush and clean drain pan, remove all debris and prepare metal and paint if necessary. Consult the Material Safety Data Sheet (MSDS) to ensure that the paint lead level is 0.06% or less. Hose down coils and drain pans and wash with an appropriate EPA approved solution approved solution.
10. Vacuum interior of unit.
11. Clean up work area.
12. Verify a heat recovery system components are operating properly.

Recommended Tools, Materials, and Equipment:

1. Standard tools
2. Vacuum.
3. Fin comb
4. Cleaning tools and materials. Consult the MSDS for hazardous ingredients and proper personal protective equipment (PPE).
5. Safety goggles.
6. Gloves.

New Preventative Maintenance Guide Worksheet

General Services Administration Preventative Maintenance Guide GSA/NCR – WPYE	
PM Guide Number: (Determined and entered by WPYE)	NSL 15
Guide ID Pointer Number: (Determined and entered by WPYE)	
Effective Date: (Determined and entered by WPYE)	
Equipment/Guide Name:	
Automatic Self-Cleaning Filters (ACF)	
Frequency:	
Semiannual	
Application	
This guide card applies to the Automatic Self-Cleaning Filters (ACF) commonly associated with water purification.	
ACFs are also commonly associated with rainwater or greywater reclamation systems as well as components in ozone filtration systems.	

No.	**Special Instructions**
1	**Be sure all power is disconnected from the system and water system is de-pressurized when performing maintenance**
2	**Schedule this maintenance in conjunction with the maintenance on associated ozone recirculation system and rainwater reuse system.**
3	**Refer to system manual for exact Preventative Maintenance Procedures.**
4	**If improperly used, pressure vessels may cause serious injury or death. Always wear proper protective clothing for the liquid being filtered. Check your MSDS sheets for instructions or suggestions.**
5	**If the filter continuously purges, the filter screen may be clogged and will not "self-clean".**

No.	**Check Points**
1	Inspect the ACF filter screens (clean as necessary).
2	Be sure power is off and that the system pressure has been relieved. (see output pressure gages)
3	Using a ¼" socket, socket extension and ratchet handle, remove the three bolts holding the filter head onto the body.

4	Remove the hoses from the filter head.
5	Carefully remove the filter head from the filter body.
6	Remove the screen from the inside of the body and wash it out with appropriate detergent and heavy water spray.
7	Inspect the inside of the filter tank, clean if necessary, to be free of dirt and grease.
8	When all is clean, replace the filter screen into the filter body.
9	Carefully replace the filter head and tighten the bolts in sequence so that the O-ring seal is evenly loaded.
10	Replace the hoses on the filter head.
11	Replace and tighten the three bolts holding the filter head to the filter body.
12	Reconnect water and electric power to the unit and initiate a self-clean cycle to insure proper operation.
13	Inspect the two basket strainers within the storage tank. Remove screens and clean as necessary.
Recommended Tools, Materials, and Equipment	
Estimated Time to Perform:	

New Preventative Maintenance Guide Worksheet

General Services Administration Preventative Maintenance Guide **GSA/NCR – WPVE**	
PM Guide Number: (Determined and entered by WPVE)	NSL 16
Guide ID Pointer Number: (Determined and entered by WPVE)	
Effective Date: (Determined and entered by WPVE)	**12/22/2011**
Equipment/Guide Name:	
HSB Bag Filter Vessel	
Frequency:	
As Needed	
Application	
This guide card applies to the HSB Bag Filter commonly associated with water filtration in rainwater or greywater reclamation systems.	
HSB Bag Filter Vessel houses a 25 Micron Bag filter.	

No.	Special Instructions
1	**Be sure all power is disconnected from the system and water system is de-pressurized when performing maintenance**
2	**Schedule this maintenance in conjunction with the maintenance on associated ozone recirculation system and rainwater reuse system.**
3	**Refer to system manual for exact Preventative Maintenance Procedures.**
4	**If improperly used, pressure vessels may cause serious injury or death. Always wear proper protective clothing for the liquid being filtered. Check your MSDS sheets for instructions or suggestions.**
5	**Check the bag filter pressure drop meter while the system is operating.**
6	**If pressure drop is approaching the red zone (9-11 psid), then remove and replace bag filter(s)**

No.	Check Points
1	Close inlet valve.
2	Open vent valve.
3	Open drain valve.
4	Loosen eye-nuts and disengage swing-bolts.
5	Open lid.
6	Remove bag hold-down.
7	Remove spent filter bag.
8	Inspect lid o-ring to confirm that it is free of defects and/or debris. Replace if necessary.
9	Inspect lid o-ring groove to confirm that it is free of debris.
10	Install new bag filter. If using V-ring bag, snap into V-ring. If using S-ring, press into recess and replace bag hold-down.
11	Close lid and engage swing bolts.
12	Alternately tighten eye-nuts until o-ring has been compressed. DO NOT OVERTIGHTEN
13	Close outlet valve.
14	Slowly open inlet valve to allow liquid to fill vessel.
15	Open vent valve at top of vessel- leave open until steady stream of liquid is present.
16	Close vent valve.
17	Slowly open outlet valve.
18	Open inlet valve completely.
19	Inspect lid and all port connections for leaks.
Recommended Tools, Materials, and Equipment	
Note: Old bag filters may be washed and re-used instead of replacing them. If washing of the filter bag is desired, rinse out the bag with water, turn the bag inside out, wash thoroughly with strong detergent and water. Allow to dry then turn the bag right side out for reuse	

Gloves
25 Micron Bag Filter
Estimated Time to Perform:

Page ____ of ____

New Preventative Maintenance Guide Worksheet

General Services Administration Preventative Maintenance Guide GSA/NCR – WPYE	
PM Guide Number: (Determined and entered by WPYE)	NSL 17
Guide ID Pointer Number: (Determined and entered by WPYE)	
Effective Date: (Determined and entered by WPYE)	**12/22/2011**
Equipment/Guide Name:	
Ozone, Oxidizing-Reduction Potential (ORP) sensor	
Frequency:	
Semi-annual	
Application	
The ORP sensor is part of the Ozone Recirculation System for water treatment, commonly associated with rainwater or greywater reuse systems.	
The ORP is a measurement of the reactive oxygen levels within the water.	
The ORP sensor makes it possible automatically to control the ozone residual level (mV) and maintain effective but not overload levels of ozone within the system.	

No.	Special Instructions
1	**Be sure all power is disconnected from the system and water system is de-pressurized when performing maintenance**
2	**Schedule this maintenance in conjunction with the maintenance on associated ozone recirculation system and rainwater reuse system.**
3	**Refer to system manual for exact Preventative Maintenance Procedures, and location of ORP sensor.**

No.	Check Points
1	Remove and clean the sensing surface of the ORP sensor. Use a soft cloth and soap and water for cleaning.
2	Replace the sensor if low or erratic ORP readings are observed.

Recommended Tools, Materials, and Equipment
Soft Cloth, Soap, Water.
Estimated Time to Perform:

New Preventative Maintenance Guide Worksheet

General Services Administration Preventative Maintenance Guide GSA/NCR – WPYE	
PM Guide Number: (Determined and entered by WPYE)	NSL 18
Guide ID Pointer Number: (Determined and entered by WPYE)	
Effective Date: (Determined and entered by WPYE)	**12/22/2011**
Equipment/Guide Name:	
Ozone, Generator	
Frequency:	
Quarterly	
Application	
The Ozone Generator is part of the Ozone Recirculation System for water treatment,	
commonly associated with rainwater or greywater reuse systems. The Ozone Generator	
converts oxygen to Ozone to be mixed into water for purification.	

No.	Special Instructions
1	**Be sure all power is disconnected from the system and water system is de-pressurized when performing maintenance**
2	**Schedule this maintenance in conjunction with the maintenance on associated ozone recirculation system and rainwater reuse system.**

3	Refer to system manual for exact Preventative Maintenance Procedures.

No.	Check Points
1	Remove and clean the air filters (screen filters) located under the ozone generator enclosure.

Recommended Tools, Materials, and Equipment

Estimated Time to Perform:	

New Preventative Maintenance Guide Worksheet

General Services Administration Preventative Maintenance Guide GSA/NCR – WPYE	
PM Guide Number: (Determined and entered by WPYE)	NSL 19
Guide ID Pointer Number: (Determined and entered by WPYE)	
Effective Date: (Determined and entered by WPYE)	12/22/2011
Equipment/Guide Name:	
Ozone, Injector	
Frequency:	
Semiannual	
Application	
This guide card applies to an ozone injector which is part of the Ozone Recirculation System for water treatment.	
It is commonly associated with rainwater or greywater reuse systems.	
The Ozone Injector injects ozone from the ozone generator into water.	

No.	Special Instructions
1	**Be sure all power is disconnected from the system and water system is de-pressurized when performing maintenance**
2	**Schedule this maintenance in conjunction with the maintenance on associated ozone recirculation system and rainwater reuse system.**
3	**Refer to system manual for exact Preventative Maintenance Procedures, and Appendix H, "Dis-Assembly and Cleaning Procedure for Ozone Injector".**

No.	Check Points
1	Remove the tubing nut from the injector and remove the injector check valve (different from the ozone check valve).
2	Be careful not to lose the ball and spring from inside the check valve.
3	While injector check valve is removed inspect the injector inlet for a buildup of dirt or other residue.
4	Clean as required with a small bottlebrush or wire and warm soapy water or denatured alcohol.

Recommended Tools, Materials, and Equipment
Small bottlebrush/wire, soap/denatured alcohol.

Estimated Time to Perform:	

New Preventative Maintenance Guide Worksheet

General Services Administration Preventative Maintenance Guide GSA/NCR – WPYE